

WHAT IS CLAIMED IS:

1. A passively shieldable needle device comprising:

a tube holder having a proximal end, a distal end and a tube receptacle between said ends;

a needle cannula mounted to said distal end of said tube holder and having a distal end projecting distally beyond said tube holder;

a tip guard movable along said needle cannula from a proximal position substantially adjacent said tube holder to a distal position where said tip guard protectively shields said distal end of said needle cannula;

a collapsible guard drive for propelling said tip guard into said distal position; and

an actuator having a proximal end in said tube receptacle and a distal end, said actuator being configured for engagement by a tube inserted into said tube receptacle of said tube holder and being movable distally for initiating distal movement of said tip guard from said proximal position.

2. The needle device of Claim 1, wherein said actuator includes a locking detent for releasably holding said tip guard in said proximal position prior to insertion of said tube into said tube receptacle.

3. The needle device of Claim 2, wherein said tube holder includes a distal end wall with an actuator aperture extending therethrough and into communication with said tube receptacle, said actuator extending through said actuator aperture and having a distal end projecting distally from said tube holder.

4. The needle device of Claim 3, wherein the distal end of the actuator is configured for exerting a pushing force on said tip guard in response to insertion of said tube into said tube receptacle.

5. The needle device of Claim 4, wherein the actuator is formed unitarily with said tip guard.

6. The needle device of Claim 4, wherein said actuator includes a locking detent releasably engaged with said tube holder.

7. The needle device of Claim 1, wherein said collapsible guard drive includes a pair of resilient deformable leaves, each said leaf having a proximal end fixed in proximity to said distal end of said tube holder and a distal end connected to said tip guard, said leaves being foldable and collapsible substantially adjacent to said tube holder when said tube holder is in said proximal position, said leaves further being resiliently movable toward a non-collapsed condition for propelling said tip guard to said distal position on said needle cannula.

8. The needle device of Claim 7, wherein said leaves are formed from silicone.

9. The needle device of Claim 7, wherein said leaves are disposed on opposite sides of said needle cannula, said leaves further having a width for substantially preventing contact with portions of said needle cannula between said hub and said tip guard when said leaves have propelled said tip guard into said distal position on said needle cannula.

10. A passively shieldable needle device comprising:

a tube holder having a proximal end, a distal end and a tube receptacle between said ends, said distal end of said tube holder including a distal end wall with an actuator aperture extending therethrough and into communication with said tube receptacle;

a needle cannula mounted to said distal end of said tube holder and having a distal end projecting distally beyond said tube holder;

a tip guard movable along said needle cannula from a proximal position substantially adjacent said tube holder to a distal position where said tip guard protectively shields said distal end of said needle cannula, said tip guard including an actuator arm extending through said actuator aperture and into said tube receptacle when said tip guard is in said proximal position; and

a collapsible guard drive for propelling said tip guard into said distal position, whereby movement of said tip guard distally from said proximal position is initiated by engagement of said actuator arm by a tube inserted into said tube receptacle of said tube holder.

11. The needle device of Claim 10, wherein the actuator arm is configured for sliding movement through said actuator aperture.

12. The needle device of Claim 11, wherein said actuator arm includes a locking detent releasably engaged with a locking structure of said tube holder when said tip guard is in said proximal position.

13. The needle device of Claim 12, wherein the locking structure is a locking edge formed on a portion of said distal end wall of said tube holder substantially adjacent said actuator aperture.

14. The needle device of Claim 10, wherein said leaves are disposed on opposite sides of said needle cannula, said leaves further having a width for substantially preventing contact with portions of said needle cannula between said hub and said tip guard when said leaves have propelled said tip guard into said distal position on said needle cannula.

15. The needle device of Claim 10, wherein said collapsible guard drive includes a pair of resilient deformable leaves, each said leaf having a proximal end fixed in proximity to said distal end of said tube holder and a distal end connected to said tip guard, said leaves being foldable and collapsible substantially adjacent to said tube holder when said tube holder is in said proximal position, said leaves further being resiliently movable toward a non-collapsed condition for propelling said tip guard to said distal position on said needle cannula.

16. The needle device of Claim 15, wherein said leaves are formed from silicone.

17. The needle device of Claim 15, wherein said leaves are disposed on opposite sides of said needle cannula, said leaves further having a width for substantially preventing contact with portions of said needle cannula between said hub and said tip guard when said leaves have propelled said tip guard into said distal position on said needle cannula.

18. A passively shieldable needle device comprising:

a tube holder having a proximal end, a distal end and a tubular sidewall extending between said ends, said proximal end of said tube holder being open to define a tube receptacle, said distal end of said tube holder including a distal end wall with a cannula aperture and an actuator aperture extending therethrough and into communication with said tube receptacle;

a needle cannula mounted to said cannula aperture of said tube holder and having a distal end projecting distally beyond said tube holder;

a tip guard slidably movable along said needle cannula from a proximal position substantially adjacent said tube holder to a distal position where said tip guard protectively shields said distal end of said needle cannula, said tip guard including an elongated actuator arm extending substantially parallel to said needle cannula through said actuator aperture and into said tube receptacle when said tip guard is in said proximal position, said actuator arm having a locking detent formed thereon and being resiliently engageable with portions of said tube holder adjacent said actuator aperture; and

a pair of resiliently deformable leaves, each said leaf having a proximal end fixed in proximity to said distal end wall of said tube holder and a distal end connected to said tip guard, said leaves being foldable and collapsible substantially adjacent to said tube holder when said tube holder is in said proximal position, said leaves further being resiliently movable toward a non-collapsed condition for propelling said tip guard to said distal position on said needle cannula.

19. The needle device of Claim 18, wherein the actuator arm is configured for sliding movement through said actuator aperture.